

REMARKS

This Amendment is in response to the Final Office Action mailed November 1, 2005. In the Office Action the Examiner finally rejected claims 1-31, and objected to the title of the application. With this amendment the title is amended and the claims are unchanged. Reconsideration and allowance of claims 1-31 are respectfully requested in view of the following remarks.

In item 1 of the Office Action the Examiner requested a new title for the application. With this amendment the Applicant is amending the title as suggested by the Examiner. Entry of this amendment is respectfully requested.

In item 3 of the Office Action the Examiner rejected claims 1-31 under 35 USC §103(a) as being unpatentable over Burrows (6021409) in view of Sarukkai et al. (5819220). The Examiner asserted that Burrows teaches all of the elements of the claims, but does not explicitly teach the use of the word techniques in a speech related application. The Examiner then asserted that Sarukkai teaches using word list techniques in a web based speech applications. Then the Examiner asserted that it would have been obvious to one of ordinary skill in the art of internet portals to adapt the teachings of Burrows into speech related web applications because it would advantageously tailor the speech enabled sites to specific vocabularies. The applicant has reviewed the references and must respectfully disagree. Further the applicant reasserts that the Examiner has failed to establish a *prima facie* case of obviousness.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation either in the references themselves or in the knowledge generally available to one of ordinary skill in the art (to which the invention is directed), to modify the reference or

to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all of the claim limitations. See In re Vaeck, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991); M.P.E.P. §2143.

First of all the Applicant reasserts the arguments made in the previous papers, that the Burrows reference is inapplicable to the present claims. The claims of the present invention are directed to a compressed lexicon for use in speech recognition and synthesis. However, it should be noted that Burrows only discloses an indexing process for indexing web pages, and not a lexicon for speech applications. It is clear from the disclosure of the Burrows document that there is no lexicon used or created from the web pages and that an index of words in a web page is not a lexicon for a speech application. Further, the Burrows reference is totally inapplicable for use in a speech application. Thus, the Burrows reference and the present invention are completely unrelated, and patentably distinct from each other. Therefore, the applicant asserts that one of ordinary skill in the art of speech applications would not look to or consider a web indexing procedure to be relevant to a speech application or for generating a lexicon, of any sort for a speech application.

Second the Examiner states that one of ordinary skill in speech application would look to the Sarukkai reference to account for the shortcomings of the Burrows reference. The Sarukkai reference is directed to a computer system for user provided speech actuation of access to stored information. A speech recognition processor operating on the computer system recognizes words based on the input speech utterances of the user in accordance with a set of language/acoustic model and speech recognition search parameters. Software running on the CPU scans

a document accessed by a web browser to form a web triggered word set from a selected subset of information in the document. The language/acoustic model and speech recognition search parameters are modified dynamically using the web triggered word set, and used by the speech recognition processor for generating a word string for input to the browser to initiate a change in the information accessed. Sarukkai, describes the basics of speech recognition, and a method for dealing with out of context words. The Sarukkai reference relates to speech recognition and web applications, and has nothing whatsoever to do with generating a compressed lexicon for use in a speech application. Therefore, the applicant asserts that the Sarukkai reference is also inapplicable to the present set of claims.

The Examiner has apparently determined that the present invention is directed towards speech recognition in internet portals. As the primary reference the Examiner has cited a reference directed to a "Method for Parsing, Indexing and Searching World Wide Web Pages". The Examiner has not provided any indication as to why one of ordinary skill in the speech application/recognition art would consider this reference relevant to generating a compressed lexicon for use in a speech application. The applicant calls for the Examiner to provide such an indication. Therefore, the applicant asserts that the Examiner has not made a *prima facie* case of obviousness. Thus, the applicant asserts that the obviousness rejection has been overcome.

The Examiner indicated that the element "receiving a word list and word-dependent data associated with each word in the word list" is disclosed as receiving word list from parsing module containing words as well as their contents in column 6 lines 60-67 of the Burrows reference. In the section cited by the Examiner it is stated:

The parsing module 30, in a collating order of the sequential locations of the content, breaks the information of the pages 200 down into discrete indexable elements or individual "words" 300. Each word 300 is separated from adjacent words by a word separator 210 indicated by a circle. In the index 70 each word is stored as a "literal" or character based value. It should be understood, that the terms page 200, word 300, and separator 210 are used to represent many different possible content modalities and data record specifications."

While Burrows discusses "words" in the cited section, there is no mention of word-dependent data. The Specification of the present application defines word-dependent data as that being useful in a compound lexicon in a speech recognition or speech synthesis context. See page 14, lines 20-28. Therefore, it is asserted that the Burrows reference does not disclose this element of claim 1.

The Examiner indicated that the element of "selecting a word from the word list" in claim 1 is disclosed "as choosing the word" in column 11, lines 14-16 of the Burrows reference. The cited section states, "In order to prepare the pairs 400 to be indexed, the pairs are sorted first in word order, and second in location order." Nowhere in the cited section is it disclose, taught or suggested that a word is selected. Therefore, it is believed that this element is not disclosed by the Burrows reference.

The Examiner indicated that the element "generating an index entry identifying a location in a lexicon memory for holding the selected word" in claim 1 was disclosed in Burrows at column 11 lines 4-7. The cited section of the reference states: "As stated above, the indexing module 40 generates an index 70 of the content of the records or pages 200. The internal data structures

71-73 of the index 70 are now described first with reference to FIG. 6." This is an index of the content of a page, and not an index entry identifying a location in a lexicon memory holding the selected word. Further review of the Burrows reference indicates that this index includes each occurrence of the word in a text document and each occurrence is stored separately. However, a text document is not a lexicon memory for speech applications. Therefore, it is believed that this element is not disclosed by Burrows.

The Examiner indicated that "encoding the selected word and its associated word-dependent data" in claim 1 was disclosed on column 12 lines 50-63 and column 14 lines 48-55. The Applicant has reviewed the cited sections and these section only mention various types of encoding (binary encoding, for example), but does not disclose what is encoded. The present invention encodes both the word and word-dependent data, which are not disclosed by Burrows. Therefore, it is believed that this element is not disclosed by Burrows.

In item 4 of the office Action the Examiner responded to the applicant's previous arguments by stating that "Applicant's arguments with respect to the Burrows reference not being a lexicon for a speech application, examiner argues that the applicant is arguing the specification and not the scope of the claim language. ... the only mention of a speech application appears in the preamble "for use in a speech application"; this phrase does not have patentable weight since the phrase appears in the preamble and is not reinforced in the body of the claim."

The applicant respectfully disagrees with the Examiner's assertion and draws the Examiner's attention to MPEP §2111.02 reproduced in part below:

Any terminology in the preamble that limits the structure of the claimed invention must be treated as a

claim limitation. See, e.g., *Corning Glass Works v. Sumetomo Electronic Electric U.S.A. Inc.* 9 P.S.Q. 2d 1962, 1966 (Fed. Cir. 1989) (the determination of whether preamble recitation or structural limitations can be resolved only on review of the entirety of the application "to gain an understanding of what the inventors actually invented and intended to encompass by the claim."); *Pack-Tec Inc. v. Amerace Corp.*, 14 U.S.P.Q. 2d 1871, 1876 (Fed. Cir. 1990) (determining the preamble language that constitutes a structural limitation is actually part of the claimed invention. See also *In re Stencel*, 4 U.S.P.Q. 2d 1071 (Fed. Cir. 1987).) The claim issued was directed to a driver for setting a joint of threaded collar, however the body of the claim did not directly include the structure of the collar as part of the claimed article. The Examiner did not consider the preamble, which did set forth a structure of the collar as limiting the claim. The court found that the collar structure could not be ignored. While the claim was not directly limited to the collar, the collar structure recited in the preamble did limit the structure of the driver." [T]he frame work - the teaching of the prior art - against which patentability is measured in not all drivers broadly, but driver's suitable for use in combination with this collar, for the claims are so limited." *Id.* at 1073.

"[A] claim preamble has the import that the claim as a whole suggests for it." *Bell Communications Research, Inc. v. Vitalink Communications Corp.*, 55 F.3d 615, 620, 34 USPQ2d 1816, 1820 (Fed. Cir. 1995). "If the claim preamble, when read in the context

of the entire claim, recites limitations of the claim, or, if the claim preamble is 'necessary to give life, meaning, and vitality' to the claim, then the claim preamble should be construed as if in the balance of the claim." *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305, 51 USPQ2d 1161, 1165-66 (Fed. Cir. 1999).

A "preamble may provide context for claim construction, particularly, where . that preamble's statement of intended use forms the basis for distinguishing the prior art in the patent's prosecution history." *Metabolite Labs., Inc. v. Corp. of Am. Holdings*, 370 F.3d 1354, 1358-62, 71 USPQ2d 1081, 1084-87 (Fed. Cir. 2004). See also *Catalina Mktg. Int'l v. Coolsavings.com, Inc.*, 289 F.3d at 808-09, 62 USPQ2d at 1785 ("[C]lear reliance on the preamble during prosecution to distinguish the claimed invention from the prior art transforms the preamble into a claim limitation because such reliance indicates use of the preamble to define, in part, the claimed invention. Without such reliance, however, a preamble generally is not limiting when the claim body describes a structurally complete invention such that deletion of the preamble phrase does not affect the structure or steps of the claimed invention." Consequently, "preamble language merely extolling benefits or features of the claimed invention does not limit the claim scope without clear reliance on those benefits or features as patentably significant.").

The applicant has argued on many occasions that the preamble limitation of a compressed lexicon for use in a speech

application is a patentable limitation. In particular there are different types of lexicons that are used in and for different applications. Depending on the use of the lexicon different information is stored as word-dependent data, and that data is specific to the lexicon's use. Word dependent data in this context is described for example on page 14 line 23 of the specification as pronunciation. Pronunciation is a key component of word dependent data in speech recognition, and thus one would readily recognize that limitation of "for use in a speech application" in the preamble properly frames what is or is not a component of word-dependent data. The Burrows reference does not teach or suggest a use in a speech application and therefore, any "word dependent data" references therein are not applicable to speech applications and further could not be used in such cases as the necessary data for use in speech applications is missing. Therefore, the applicant respectfully submits that the limitations of the preamble properly frame the claims and therefore distinguish the claims over the prior art of record.

In conclusion the applicant submits that the Examiner has failed to meet the burden under MPEP §2143 to establish a prima facie case of obviousness, and has not given the limitations argued in the preamble of the claims appropriate consideration. Therefore, the Applicant asserts that all claims are allowable over the current art of record. Reconsideration and allowance of claims 1-31 are respectfully requested.



The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

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